

The invention claimed is:

1. An electrical connection comprising:
an elongated stud having an enlarged flange, a shoulder and a
patterned segment, the shoulder being located between the flange and the patterned
segment, the shoulder having at least seven substantially flat faces circumferentially
5 located around a longitudinal axis of the stud; and
a fastener removably secured to the stud.
2. The electrical connection of Claim 1 wherein the patterned
segment of the stud includes at least one spiral thread.
3. The electrical connection of Claim 2 wherein the fastener is a
rotatable nut having an internal thread operably engaging the thread of the stud.
4. The electrical connection of Claim 3 wherein the fastener has an
enlarged section with at least four substantially flat faces circumferentially located
around a longitudinal centerline of the fastener, the fastener also has a substantially
cylindrical section coaxially aligned with the enlarged section, and the enlarged
5 section operably encloses at least a portion of the shoulder of the stud.

5. The electrical connection of Claim 1 wherein the flange of the stud has a circular periphery coaxially aligned with the longitudinal centerline.

6. The electrical connection of Claim 1 wherein the stud further includes a weldable segment located on an opposite side of the flange from the shoulder.

7. The electrical connection of Claim 1 wherein the shoulder includes curved portions between sections of adjacent pairs of the faces, and the faces define a polygonal cross sectional shape.

8. The electrical connection of Claim 1 further comprising an automotive vehicle body panel, wherein the stud is a grounding stud welded to the panel.

9. The electrical connection of Claim 1 wherein the shoulder has eight faces arranged in an octagonal cross sectional configuration.

10. An electrical stud comprising:

a threaded segment spiraling around a longitudinal centerline;

a shoulder located adjacent the threaded segment and having at least eight substantially flat faces surrounding the longitudinal centerline and defining a polygonal cross sectional shape;

an enlarged flange located adjacent the shoulder opposite the threaded segment, the flange being transversely larger than the shoulder and the threaded segment; and

a securing segment located on an opposite side of the flange from the shoulder;

wherein the threaded segment, shoulder, flange and securing segment are parts of a single metallic member operable to conduct electricity.

11. The electrical stud of Claim 10 wherein the shoulder has eight faces which define an octagonal cross sectional shape.

12. The electrical stud of Claim 11 wherein the flange has a circular peripheral shape.

13. The electrical stud of Claim 10 wherein the securing segment has a polygonal cross sectional shape and is adapted to be welded onto an adjacent panel.

14. An automotive electrical connection system comprising:

(a) a metallic vehicle panel;

(b) a grounding stud including:

a threaded segment spiraling around a longitudinal centerline;

5 a shoulder located adjacent the threaded segment and having at least eight angularly offset faces defining a polygonal cross sectional shape;

an enlarged flange located adjacent the shoulder opposite the threaded segment, the flange being transversely larger than the shoulder and the threaded segment; and

10 a securing segment located on an opposite side of the flange
from the shoulder, the securing segment being attached to the vehicle panel; and

(c) a nut having an enlarged segment and a reduced segment, the enlarged segment having a polygonal peripheral shape and the reduced segment having a substantially circular peripheral shape, the reduced section having at least

15 one internal formation operably engaging the threaded segment of the stud, the nut being rotatably securable to the stud, the enlarged section of the nut being operably located around an outside of at least a portion of the shoulder when the nut is fully secured to the stud.

15. The system of Claim 14 wherein the shoulder of the stud has an octagonal cross sectional shape.